

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-15 (Canceled).

Claim 16 (Currently Amended): An image forming apparatus for processing image data, comprising:

an image data processing unit including a graphics port and a peripheral device interconnection port, the peripheral device interconnection port configured to be connected to a print engine;

a first image data memory configured to store compressed image data;

a second image data memory configured to communicate with the first image data memory; and

a unit connected to the graphics port of the image data processing unit and having a function to interface between the image data processing unit and the first image data memory,

wherein the first image data memory is connected to the image data processing unit via the unit, and the second memory is connected to the image data processing unit, not via the unit,

wherein the compressed image data is controlled to be transferred from the first image data memory to the second image data memory, and then from the second image data memory to the image data processing unit, and wherein the image data processing unit decompresses the transferred compressed image data and outputs the decompressed image data to the print engine.

Claim 17 (Previously Presented): The image forming apparatus as claimed in claim 16, wherein the first image data memory stores compressed image data.

Claim 18 (Previously Presented): The image forming apparatus as claimed in claim 16, wherein the image data processing unit further includes an interface with a second image data memory, and the image data processing unit outputs image data stored in the second image data memory, the image data stored in the second image data memory being transferred from the first image data memory to the second image data memory through the interface of the image data processing unit.

Claim 19 (Previously Presented): The image forming apparatus as claimed in claim 18, wherein the image data processing unit reads compressed image data from the second image data memory, and decompresses the read compressed image data and outputs the decompressed image data to the print engine.

Claim 20 (Currently Amended): An image forming apparatus for processing image data, comprising:

an image data processing unit including a graphics port and a peripheral device interconnection port, the peripheral device interconnection port configured to be connected to a print engine;

a first image data memory configured to store compressed image data;

a second image data memory configured to communicate with the first image data memory; and

means, connected to the graphics port of the image data processing unit, for interfacing between the image data processing unit and the first image data memory,

wherein the first image data memory is connected to the image data processing unit via the means for interfacing, and the second memory is connected to the image data processing unit, not via the means for interfacing,

wherein the compressed image data is controlled to be transferred from the first image data memory to the second image data memory, and then from the second image data memory to the image data processing unit, and wherein the image data processing unit decompresses the transferred compressed image data and outputs the decompressed image data to the print engine.

Claim 21 (Previously Presented): The image forming apparatus as claimed in claim 20, wherein the first image data memory stores compressed image data.

Claim 22 (Previously Presented): The image forming apparatus as claimed in claim 20, wherein the image data processing unit further includes an interface with a second image data memory, and the image data processing unit outputs image data stored in the second image data memory, the image data stored in the second image data memory being transferred from the first image data memory to the second image data memory through the interface of the image data processing unit.

Claim 23 (Previously Presented): The image forming apparatus as claimed in claim 22, wherein the image data processing unit reads compressed image data from the second image data memory, and decompresses the read compressed image data and outputs the decompressed image data to the print engine.

Claim 24 (Currently Amended): A method of transferring image data to a print engine in an image data processing unit including a graphics port and a peripheral device interconnection port, the peripheral device interconnection port configured to be connected to a print engine, the method comprising:

storing compressed image data in a first image data memory;
interfacing, through a unit connected to the graphics port of the image data processing unit, between the image data processing unit and the first image data memory; and
transferring the compressed image data from the first image data memory to a second image data memory communicating with the first memory, and then from the second image data memory to the image data processing unit, and wherein the image data processing unit decompresses the transferred compressed image data and outputs the decompressed image data to the print engine,

wherein the first image data memory is connected to the image data processing unit via the unit, and the second memory is connected to the image data processing unit, not via the unit.

Claim 25 (Previously Presented): The image forming method as claimed in claim 24, wherein the first image data memory stores compressed image data.

Claim 26 (Previously Presented): The image forming method as claimed in claim 24, wherein the image data processing unit further includes an interface with a second image data memory, and the method further comprising:

outputting by the image data processing unit, image data stored in the second image data memory, and transferring the image data stored in the second image data memory from

the first image data memory to the second image data memory through the interface of the image data processing unit.

Claim 27 (Previously Presented): The image forming method as claimed in claim 26, further comprising:

reading, by the image data processing unit, compressed image data from the second image data memory, and decompressing the read compressed image data and outputting the decompressed image data to the print engine.

Claim 28 (Currently Amended): An image forming apparatus for processing image data, comprising:

an image data processing unit including a graphics port and a peripheral device interconnection port, the peripheral device interconnection port configured to be connected to a print engine;

a first image data memory connected to the graphics port and configured to store image data compressed; and

a second image data memory configured to communicate with the first image data memory, wherein the second memory is directly connected to the image data processing unit,

wherein the compressed image data is controlled to be transferred from the first image data memory to the second image data memory, and then from the second image data memory to the image data processing unit, and wherein the image data processing unit decompresses the transferred compressed image data and outputs the decompressed image data to the print engine.

Claim 29 (Currently Amended): An image forming apparatus for processing image data, comprising:

an image data processing unit including a graphics port and a peripheral device interconnection port, the peripheral device interconnection port configured to be connected to a print engine;

first means, connected to the graphics port, for storing compressed image data; and second means for storing image data and communicating with the first means for storing, wherein the second memory is directly connected to the image data processing unit,

wherein the compressed image data is controlled to be transferred from the first means for storing to the second means for storing, and then from the second means for storing to the image data processing unit, and wherein the image data processing unit decompresses the transferred compressed image data and outputs the decompressed image data to the print engine.

Claim 30 (Currently Amended): An image forming apparatus for processing image data, comprising:

an image data processing unit including a graphics port and a peripheral device interconnection port, the peripheral device interconnection port configured to be connected to a print engine;

a first image data memory connected to the graphics port and configured to store compressed image data; and

a second image data memory configured to communicate with the first image data memory, wherein the second memory is directly connected to the image data processing unit, wherein the compressed image data is controlled to be transferred from the first image data memory to the second image data memory, and then from the second image data

memory to the image data processing unit, and wherein the image data processing unit decompresses the transferred compressed image data and outputs the decompressed image data in accordance with an output timing to output the decompressed image data to the print engine.

Claim 31 (Currently Amended): An image forming apparatus for processing image data, comprising:

an image data processing unit including a graphics port and a peripheral device interconnection port, the peripheral device interconnection port configured to be connected to a print engine;

first means, connected to the graphics port, for storing image data; and
second means for storing image data and communicating with the first means for storing, wherein the second memory is directly connected to the image data processing unit,
wherein the compressed image data is controlled to be transferred from the first means for storing to the second means for storing, and then from the second means for storing to the image data processing unit, and wherein the image data processing unit decompresses the transferred compressed image data and outputs the decompressed image data in accordance with an output timing to output the decompressed image data to the print engine.

Claim 32 (Currently Amended): An image forming apparatus for processing image data, comprising:

an image data processing unit including a graphics port and a peripheral device interconnection port, the peripheral device interconnection port configured to be connected to a print engine;

a first image data memory connected to the graphics port and configured to store non-compressed image data; and

a second image data memory configured to communicate with the first image data memory, wherein the second memory is directly connected to the image data processing unit,

wherein the non-compressed image data is controlled to be transferred from the first image data memory to the image data processing unit, and the image data processing unit then compresses the image data and provides the compressed image data to the second image data memory, and wherein the image data processing unit retrieves the compressed image data from the second image data memory and decompresses the retrieved compressed image data and outputs the decompressed image data to the print engine.

Claim 33 (Currently Amended): An image forming apparatus for processing image data, comprising:

an image data processing unit including a graphics port and a peripheral device interconnection port, the peripheral device interconnection port configured to be connected to a print engine;

first means, connected to the graphics port, for storing compressed image data; and second means for storing image data and communicating with the first means for storing, wherein the second memory is directly connected to the image data processing unit,

wherein the compressed image data is controlled to be transferred from the first means for storing to the image data processing unit, and the image data processing unit then compresses the image data and provides the compressed image data to the second image data memory, and wherein the image data processing unit retrieves the compressed image data from the second means for storing and decompresses the retrieved compressed image data and outputs the decompressed image data to the print engine.